

## ABSTRACT OF THE DISCLOSURE

An inter-equipment authentication and key delivery scheme, system, and equipment is provided which is capable of making authentication of an IC card ID signature, by comparison of a decrypted ICCID with another ICCID

5 reproduced by dividing transmitted data. The inter-equipment authentication and  
key delivery scheme, system, and equipment can be used, for example, when an  
automobile passes by roadside equipment at a tollbooth, and the roadside  
10 equipment transmits a random digit (RND) generated therein as challenge data to  
an IC card via onboard equipment, and the IC card transmits back to the roadside  
equipment the random digit after encrypting it with a secret key Kicc. The IC  
card also transmits its ID (ICCID) and a certificate of individual IC card key  
15 CERT-Kicc together with the random digit . The roadside equipment divides the  
transmitted data into a response data E(Kicc, RND), the ICCID, and the  
certificate of individual IC card key CERT-Kicc. The roadside equipment 130  
reproduces the Kicc and the ICCID by decrypting (DEC) the certificate of  
15 individual IC card key CERT-Kicc using a validation key PC.